
RECORD OF DECISION

GLENWOOD SPRINGS RESOURCE MANAGEMENT PLAN

U.S. DEPARTMENT OF THE INTERIOR

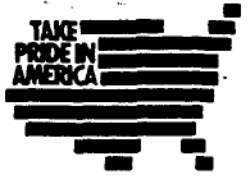
**BUREAU OF LAND MANAGEMENT
GRAND JUNCTION DISTRICT
Glenwood Springs Resource Area**

November 1991



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
COLORADO STATE OFFICE
2850 YOUNGFIELD STREET
LAKEWOOD, COLORADO 80215-7076



In Reply Refer To:
CO-922
3100

NOV 27 1991

Dear Reader:

Enclosed is a copy of the Record of Decision for the Oil and Gas Plan Amendment to the Glenwood Springs Resource Management Plan/Environmental Impact Statement (EIS). The decisions contained in the amendment are those analyzed in the "Colorado Oil and Gas Leasing and Development Final Environmental Impact Statement," published January 1991.

The Glenwood Springs Oil and Gas Amendment was conducted jointly with Kremmling, Little Snake, the Northeast Planning Areas, and San Juan/San Miguel Planning Areas in the Draft and Final Plan Amendment/EIS. However, the Records of Decision and approved amendments are produced separately to facilitate local use.

The approved amendment now becomes the basic guide for management of oil and gas resources on 725,000 acres of public land administered by the Bureau of Land Management in western Colorado.

We are pleased to provide this copy for your reference and appreciate your cooperation and participation during the planning process.

Sincerely,

H. Robert Moore
State Director

Enclosure

Record of Decision

Glenwood Springs Resource Management Plan

DECISION

The decision is made to approve the amendment for the oil and gas element of the Resource Management Plan (RMP) for the Glenwood Springs Resource Area as described in the Proposed Action Alternative of the *Colorado Oil and Gas Leasing and Development Final Environmental Impact Statement*, January 1991. The decisions contained in this Record completely supersede those for oil and gas leasing and development in the Glenwood Springs RMP. This amendment was prepared under the regulations for implementing the Federal Land Policy and Management Act (FLPMA) of 1976 (43 CFR 1600). An environmental impact statement (EIS) was prepared for this Plan Amendment in compliance with the National Environmental Policy Act (NEPA) of 1969. The decisions contained in this amendment are the same as those analyzed in the Proposed Action of the Final EIS published by the BLM in January 1991. Correction of editorial errors are shown in the "ERRATA" sheet at the end of this document.

The amendment modified the oil and gas leasing decisions that were made in the original Record of Decision signed January, 1984. The decisions contained in this document will be implemented in the form of lease stipulations and conditions of approval on the subsequent field operations on all new leases. The decisions will also be implemented on new operations on existing leases as conditions of approval where those conditions do not adversely affect lease rights already granted.

The major decisions contained in this amendment are:

- 697,720 acres of BLM-administered mineral estate within the Glenwood Springs Resource Area are open to oil and gas leasing and development, subject to the lease terms and (as applicable) lease stipulations noted in Appendix A of this document.
- 27,280 acres of BLM-administered mineral estate within the Glenwood Springs Resource Area are closed to oil and gas leasing and development.
- Special management areas, including all Areas of Critical Environmental Concern (ACEC), Research Natural Areas (RNA), and Special Recreation Management Areas (SRMA), and special status plant species, major river corridors, fish hatcheries, State wildlife areas, and critical watershed areas will be protected with No Surface Occupancy (NSO) stipulations on oil and gas leases.
- Important wildlife habitat will be protected with the use of No Surface Occupancy, Timing Limitation, or Controlled Surface Use stipulations and/or Lease Notices on oil and gas leases, and Conditions of Approval on permits.

ALTERNATIVES

Three alternatives were analyzed in the development of this Plan Amendment: Continuation of Present Management, Standard Terms and Conditions, and the Proposed Action. These alternatives were described and analyzed in both the Draft and Final EIS.

The Continuation of Present Management alternative analyzed leasing oil and gas utilizing Standard Terms and Conditions and the stipulations currently in use. This alternative represents the "no action alternative," that is, what we think would have occurred had it been decided not to amend the Resource Management Plan.

The Standard Terms and Conditions alternative analyzed leasing oil and gas utilizing only the Standard Terms and Conditions that are required by regulation to be applied to all federal leases. This alternative is potentially the least restrictive that BLM could implement. However, in certain localized areas, it may be more restrictive because managers often decide not to lease areas containing sensitive resources rather than to lease them without protective stipulations.

The Proposed Action alternative analyzed leasing oil and gas utilizing Standard Terms and Conditions and additional leasing stipulations to further protect resources and values. The Proposed Action contains the management prescriptions that local managers believe to be the best balance of past practices, and new prescriptions. This alternative is considered to be environmentally preferred and it has been selected to amend the San Juan/San Miguel RMP.

MANAGEMENT CONSIDERATIONS

This decision was influenced by statutory, legal, and national policy considerations. The resource area was evaluated for the potential for oil and gas production as well as the presence of sensitive natural resources. New information was obtained on the effects that surface-disturbing activities have on various wildlife species and these findings were used to develop new protective measures. The constraints on oil and gas leasing and development were then reviewed in light of the potential. Wherever possible, major conflicts were resolved to provide for a balance between sensitive natural resource protection and oil and gas development. Finally, proposed constraints were evaluated against the authority granted to the BLM to protect

sensitive natural resources in the "Granting Clause" and section 6 of the standard lease terms. In those cases where the standard lease terms provided the same resource protection, the proposed constraints were not carried forward from the Draft EIS to the Final EIS, in order to avoid unnecessary duplication. In those cases where the standard lease terms did not provide adequate protection, the proposed constraints were carried forward into the decision.

MITIGATION

The Plan Amendment has been designed to avoid or minimize environmental impacts where practical. Specific mitigation measures are described in Chapter 2 of this document.

MONITORING

The original Record of Decision (January, 1984) contains a monitoring and evaluation plan. This plan will be used to determine the effectiveness of the mitigation practices and the accuracy of the impact predictions.

PUBLIC INVOLVEMENT

The public was involved throughout the entire planning process. A Notice of Intent to Amend the RMP was published in the *Federal Register* on March 13, 1989. Public scoping meetings were held during the 30-day comment period in Walden, Craig, Glenwood Springs, Durango, and Denver, Colorado. Numerous meetings were held with various interest groups. Interested local, state, and federal agencies were contacted and coordination was pursued throughout the process. Public review of the Draft EIS was conducted over a 90-day period, between May 18 and August 17, 1990. Public meetings were held in Craig, Grand Junction, Durango, and Denver, Colorado, to receive comments and additional public input. A 30-day public protest period was held in conjunction with a 60-day Governor's consistency review after the Final EIS was published in January 1991.

During the protest period, three protests were received by the BLM's Director. One protest, filed by John T. Broderick, did not qualify for administrative review. A protest was filed by the Colorado Environmental Coalition and after a review of the issues raised in the protest, the BLM's Director determined that no change to the amendment would be made. Finally, a protest was filed by the Colorado Chapter of the Wildlife Society. This protest concerned changes to lease stipulations regarding compensation for impacts to crucial wildlife habitat, protection of sage grouse, and protection of riparian habitat. The Director found that an appropriate level of protection was provided in the Plan Amendment for all three of the above-described issues and that no change to the content of the amendment would be made. The following features have been included in this document to clarify the leasing decisions made in the Final EIS and incorporated in this decision:

- (1) a list of approved lease stipulations and a discussion of conditions of approval for permits;
- (2) for the proposed action, a list of lease stipulations that were originally proposed in the

Draft EIS and either added, changed or deleted in the proposed action of the final EIS;

- (3) a rationale for such changes;
- (4) an errata sheet correcting the inadvertent editorial errors found in the Final EIS.

Point 1 can be found in Appendix A. Points 2 and 3 can be found in Appendix B. Finally, point 4 can be found in Appendix C.

CONSISTENCY

The Plan Amendment is consistent with plans, programs, and policies of the local and state governments and of other federal agencies.

PUBLIC AVAILABILITY OF THE PLAN

Copies of the Plan Amendment are available from any BLM office in the state of Colorado.

Date



Colorado State Director
Bureau of Land Management

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CHAPTER ONE

PURPOSE AND NEED

The BLM, as agent for the Secretary of the Interior, has responsibility for leasing and managing the oil and gas resource where the mineral estate is federally owned. This is referred to as the federal mineral estate. For many years, concern has been expressed that BLM's oil and gas leasing process may not adequately comply with the National Environmental Policy Act (NEPA) requirements to analyze and disclose the cumulative impacts of oil and gas activities. Conflicting court decisions resulted in additional uncertainty. To resolve this issue, BLM officials consulted with representatives of environmental groups and the oil and gas industry to help revise BLM's environmental analysis standards for oil and gas leasing decisions which are made in the Resource Management Plan (RMP). This resulted in issuance of a new BLM manual guidance during the Fall of 1987 titled, *Supplemental Program Guidance for Fluid Minerals*. At the time this guidance was issued, BLM within Colorado had six RMPs near completion or completed which required this new standard. To achieve compliance with the new standards in a reasonable time frame, it was decided to amend five of the six RMPs, including Glenwood Springs Resource Area. The sixth area is preparing a new RMP, for other reasons, that will incorporate the new standards.

The leasing decisions described in the RMP/EIS will be revised to conform to policies and conditions of this decision. The most significant change is to incorporate, in a more systematic manner, a cumulative impact analysis which is based on a reasonably foreseeable estimate of future oil and gas activity. This requirement is described in BLM Manual section 1624.2.

For more than 100 years, it has been federal policy to make lands available for mineral explora-

tion and development. The Arab oil embargo of the early 1970s emphasized the desirability of reducing U.S. dependence on imported oil. Although the federal mineral estate, known reserves, and existing production of oil and gas within the areas depicted in this EIS represent only a small proportion of the U.S. total production, reserves, and owned mineral estate, it is nonetheless an important resource. This is especially true to Colorado. Development of the oil and gas resource has historically been an integral part of the state and local economies in Colorado. Although the rate of development has declined regionally in recent years, it is expected to continue to be an important economic factor, affecting state and local communities and the Rocky Mountain Region.

DESCRIPTION OF THE AREA

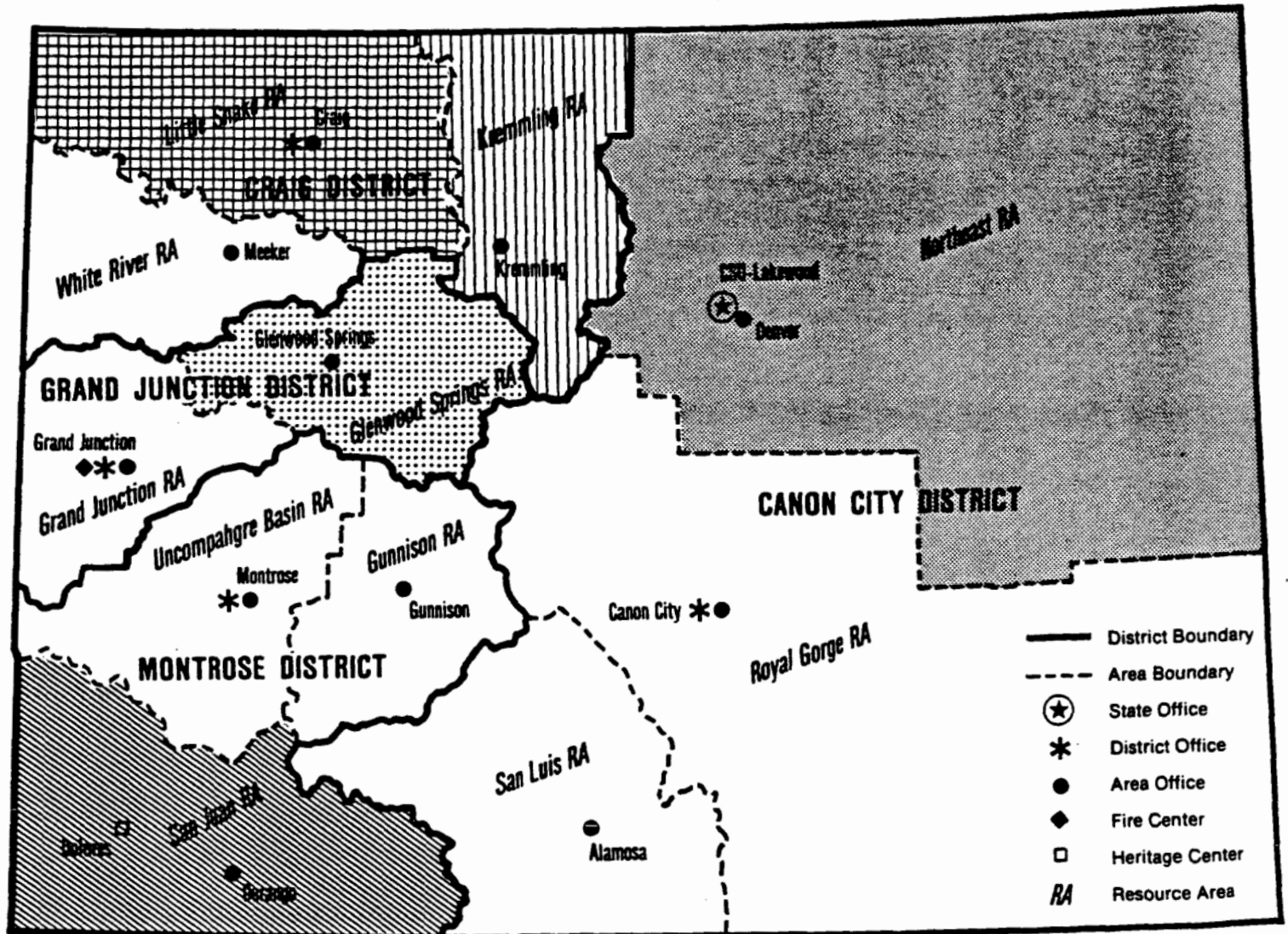
See the description in the original Glenwood Springs Resource Area RMP and Map 1 in this document.

IMPLEMENTATION

This amendment will be implemented upon approval by the State Director. The new leasing stipulations will be attached to oil and gas leases beginning with the first sale after plan implementation (i.e., ROD signing).

MONITORING

This Plan Amendment will be monitored in accordance with the monitoring plan in the original RMP.



MAINTENANCE

Changes may be made to the Plan without additional public involvement only if they are not significant. This category of plan change is called "plan maintenance." Definitions and procedures for plan maintenance are contained in the BLM planning regulations. Examples of plan maintenance include updating inventories of resources to be protected, so long as the new inventory does not change the need for, or level of, protection required by the plan.

One example of maintenance might be the expansion of acreage covered by a wildlife stipulation based on a new inventory. That kind of maintenance would only be done when the Authorized Officer determined that no new leasing restriction was required to protect the additional acreage and that the imposition of the restriction on the addition would not impact oil and gas development more than predicted in the RMP.

AMENDMENTS AND REVISIONS

The Plan Amendment may be amended or revised if major changes are necessary. Monitoring and evaluation findings, new data, new or revised policy, or a proposed action resulting in a change in scope, terms, or conditions of the plan, would warrant an amendment or revision. An amendment will be analyzed either in an environmental assessment or an environmental impact statement. The public and other agencies will be included in the amendment and revision processes.

An example of a decision requiring a Plan Amendment would be to convert a No Surface Occupancy stipulation to a Timing Limitation stipulation of four months. To make such a decision the Authorized Officer would have to evaluate the impacts resulting from oil and gas development during certain times of the year in an area where the RMP originally analyzed the impacts of no development at all.

Note that this decision is different than one an Authorized Officer might make on a one-time basis to exempt a particular operation from an No Surface Occupancy stipulation based on criteria analyzed in the RMP (See the discussion of waiver, exception, and modification of leasing stipulations in the Final EIS).

VALID EXISTING RIGHTS

The Plan Amendment does not repeal valid existing rights on public lands. Valid existing rights take precedence over the actions in this plan. As an example, a lease issued prior to this plan having no timing limitation stipulation would not be restricted by decisions in this plan unless the lessee agrees voluntarily or the restriction can be made compatible with the lease terms issued. Valid existing rights may be held by other federal agencies or by private individuals or companies.

CHAPTER TWO

RESOURCE MANAGEMENT DECISIONS

OBJECTIVES

Facilitate orderly, economic, and environmentally-sound exploration and development of oil and gas resources using balanced multiple-use management.

DECISIONS

- Bull Gulch, Hack Lake, Castle Peak, and Eagle Mountain Wilderness Study Areas will not be leased. This is 27,280 acres of BLM-administered mineral estate within the Glenwood Springs Resource Area (see Map 2 and Table 1).
- No Surface Occupancy stipulations will be used to protect major River Corridors, State fish hatcheries, Deep Creek, Bull Gulch, Thompson Creek, Hack Lake, Rifle Mountain Park, Sunlight Peak Area, municipal watersheds, Glenwood Springs Debris Flow Hazard Zone, Garfield Creek State Wildlife Area, Basalt State Wildlife Area, and West Rifle Creek State Wildlife Area (see Map 2, Table 2, and Appendix A).
- Timing Limitation stipulations will be used to protect crucial habitat, birthing, fledgling, and nesting areas (see Map 3 and Appendix A).
- Controlled Surface Use stipulations will be used to protect underground coal mines, fragile soil areas, Visual Resource Management Class II Areas, the Colorado River, steep slopes, and riparian/wetland vegetation (see Map 4 and Appendix A).
- Lease Notices will alert lessees to special requirements for Blue Hill Archaeological ACEC, paleontological areas, sage grouse nests, and sensitive species areas (see Appendix A).

- Conditions of Approval will be applied to operational approvals (Applications for Permit to Drill and Sundry Notices) as determined necessary by the Authorized Officer to protect other resources and values within the terms, conditions, and stipulations of the lease contract. A list of the most common conditions of approval is found in Appendices D and F of the Final Plan Amendment/EIS.

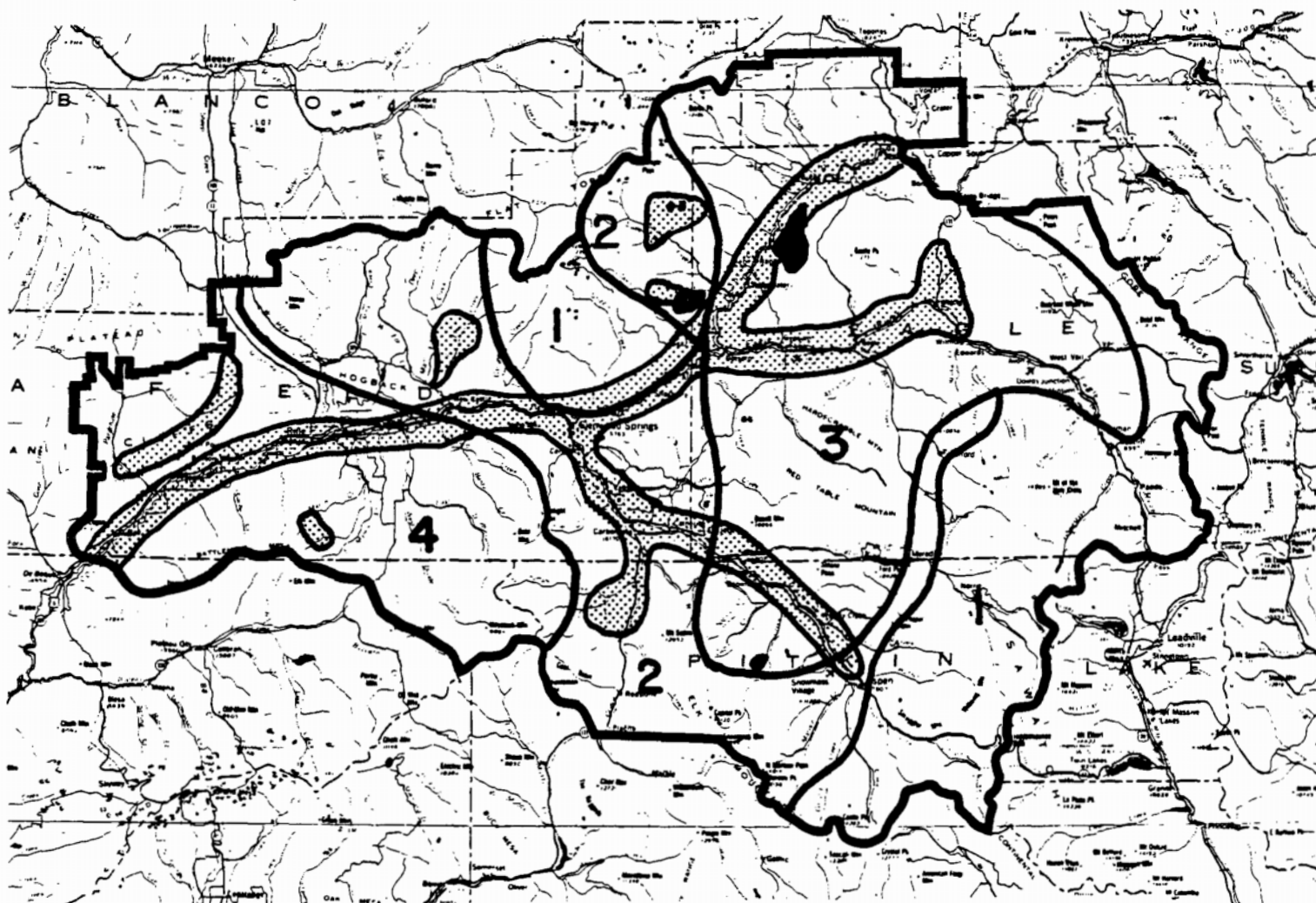
Further details of these decisions are provided in the Final Plan Amendment/EIS. All leasing stipulations referred to above and included in this decision are provided in Appendix A.

TABLE 1. WILDERNESS STUDY AREAS




Location	WSA Name	Size (acres)	Recommendation
Glenwood Springs Resource Area	Eagle Mountain	330	Suitable
	Hack Lake	10	Suitable
	Bull Gulch	10,414	Suitable
		4,586	Non-Suitable
	Castle Peak	11,940	Non-Suitable
	Totals	10,754	Suitable
		16,526	Non-Suitable
		27,280	

TABLE 2. PROPOSED ACTION--NO SURFACE OCCUPANCY

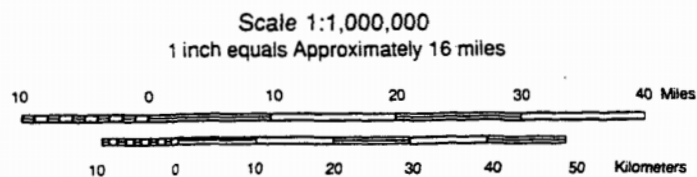
	ACRES
GSRA	
Major River Corridors	42,148
Rifle Falls Fish and Glenwood Springs Fish Hatcheries	15,200
Hack Lake	3,480
Rifle Mt. Park	400
Sunlight Peak Area	1,900
Municipal Watersheds	5,960
Thompson Creek	4,286
Bull Gulch	10,214
Deep Creek	4,400
Glenwood Springs Debris Hazard Zone	7,160
Garfield Creek State Wildlife Area	12,520
Basalt State Wildlife Area	4,460
West Rifle Creek State Wildlife Area	1,160
Raptor Nests	45,000
Sage Grouse Leks	3,360



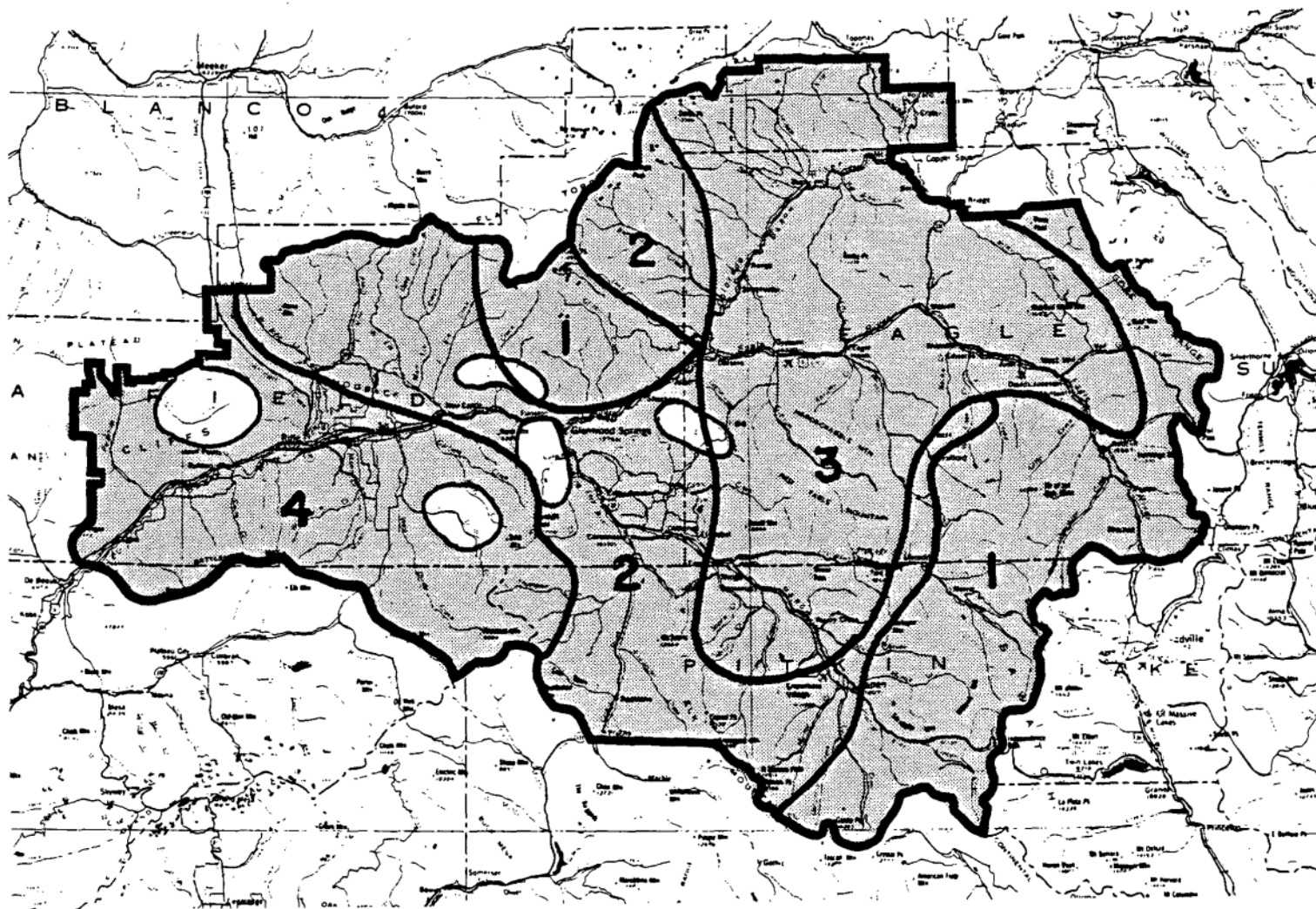
GLENWOOD SPRINGS RESOURCE AREA

-  Resource Area Boundary
-  No Leasing
-  No Surface Occupancy



- Oil and Gas Potential**
- 1 - None
 - 2 - Low
 - 3 - Moderate
 - 4 - High



Map 2

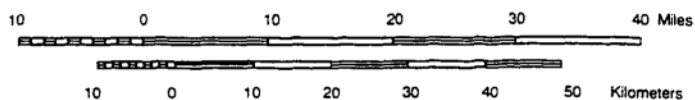


GLENWOOD SPRINGS RESOURCE AREA

-  Resource Area Boundary
-  Timing Limitations

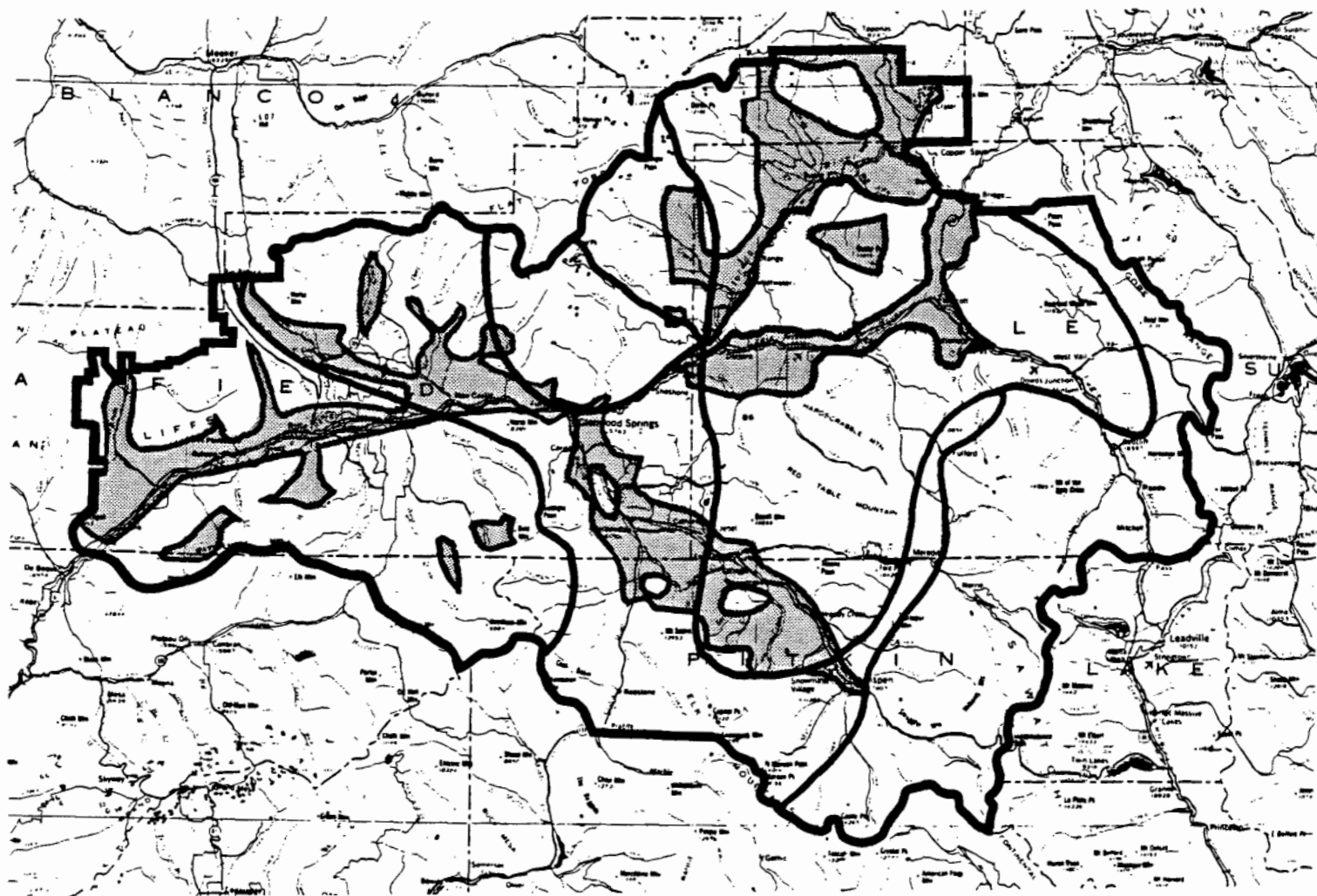
- Oil and Gas Potential
- 1 - None
 - 2 - Low
 - 3 - Moderate
 - 4 - High

Scale 1:1,000,000
1 inch equals Approximately 16 miles





Map 3





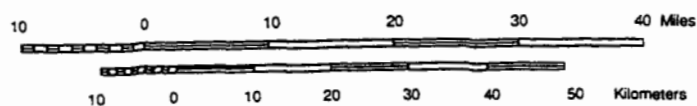
GLENWOOD SPRINGS RESOURCE AREA

-  Resource Area Boundary
-  Controlled Surface Use

All perennial streams are covered by CSU.

- Oil and Gas Potential
- 1 - None
 - 2 - Low
 - 3 - Moderate
 - 4 - High

Scale 1:1,000,000
1 inch equals Approximately 16 miles



Map 4



APPENDIX A

Leasing Stipulations and Notices, "No lease" Areas, and Conditions of Approval for Permits

No Surface Occupancy Stipulations

1. [Stip. Code: CO-01] No Surface Occupancy (NSO) would be allowed on leases within the area of federally leased coal lands where oil and gas development would likely be incompatible with coal extraction. This stipulation may be waived without a Plan Amendment if the lessee agrees that the drilling of a well will be subject to the following conditions: (1)(a) well must be plugged when the mine approaches within 500 feet of the well and re-entered or re-drilled upon completion of the mining operation; (b) well must be plugged in accordance with Mine Safety and Health Administration (formerly Mine Enforcement and Safety Administration) Informational Report 1052; (c) operator will provide accurate location of where the casing intercepts the coal by providing a directional and deviation survey of the well to the coal operator; or (2) relocate well into a permanent pillar or outside the area to be mined. A suspension of operations and production will be considered for the oil and gas lease only when a well is drilled and later plugged, and a new well or re-entry is planned when the mine moves through the location.

2. [Stip. Code: CO-02] Grouse (includes sage grouse, mountain sharp-tailed, lesser and greater prairie chickens). NSO within one-quarter-mile radius of a lek site (courtship area).

Exception for grouse leks. The NSO area may be altered depending upon the active status of the lek or the geographical relationship of topographical barriers and vegetation screening to the lek site.

3. [Stip. Code: CO-03] Raptors (includes golden eagle and osprey; all accipiters; falcons, except kestrel; butteos; and owls). Raptors that are listed and protected by the Endangered Species Act are addressed separately. NSO within one-eighth-mile radius of nest site.

Exception for raptor nest site. The NSO area may be altered depending on the active status of the nest site or the geographical relationship of topographic barriers and vegetation screening to the nest site.

4. [Stip. Code: CO-04] Bald Eagle NSO within one-quarter-mile radius of the roost or nest site.

Exception for bald eagle roost site. The NSO applies to the essential features of the winter roost site complex. The NSO area may be altered depending on the active status of the roost or the geographical relationship of topographic barriers and vegetation screening.

There are no exceptions identified for nest sites.

5. [Stip. Code: CO-05] Peregrine Falcon NSO within one-quarter-mile radius of cliff nesting complex.

No exceptions identified.

6. [Stip. Code: CO-06] Mexican Spotted Owl NSO within one-quarter-mile radius of the confirmed roost site and nesting site.

No exceptions identified.

7. [Stip. Code: CO-07] Waterfowl and Shorebird NSO on significant production areas (Major areas are Waterfowl Habitat Management Areas and rookeries.)

No exceptions identified.

8. [Stip. Code: CO-08] NSO on habitat areas with special status plant species (Includes federally listed and proposed species for listing and candidate species.)

Exception for special status plant species habitat. The NSO may be altered after important factors are considered in a site-specific impact analysis such as the type and amount of surface disturbance, plant frequency and density, and the relocation of disturbances.

9. Stip. Code: GS-01] Major River Corridors: Protection of 1) threatened and endangered and sensitive fish and wildlife species, 2) riparian values, 3) waterfowl production areas, and 4) the lower Colorado River ACEC: One-half mile either side of the high water mark of the river.

No exceptions identified.

10. [Stip Code: GS-02] Rifle Falls and Glenwood Springs Fish Hatcheries: Protection of water quality and quantity supplying the Rifle Falls and Glenwood Springs Fish Hatcheries: Two-mile radius of the hatcheries.

Exception criterion would include special mitigative measures developed in consultation with Colorado Division of Wildlife.

11. [Stip Code: GS-03] Deep Creek ACEC/ SRMA/VRM Class I/Cave Resource Area: Protection of recreational, visual, and cave resource values. No Subsurface Occupancy. Drilling is prohibited through a zone beginning at the surface to an elevation of 5,600 feet above mean sea level.

No exceptions identified.

12. [Stip. Code: GS-04] Bull Gulch ACEC/ SRMA/VRM Class I: Protection of semi-primitive and non-motorized recreational values, and visual values.

No exceptions identified.

13. [Stip Code: GS-05] Thompson Creek ACEC/ SRMA/VRM Class I: Protection of semi-primitive non-motorized recreational and visual values.

No exceptions identified.

14. [Stip. Code: GS-06] Hack Lake SRMA: Protection of semi-primitive non-motorized recreational and visual values.

Exception criterion includes mitigative measures to screen operations from scenic view sheds; reduce to acceptable level drill rig and other equipment noise; and fence or otherwise protect recreating public from operations.

15. [Stip Code: GS-07] Rifle Mountain Park: Protection of recreational and visual values.

Exception criterion includes mitigative measures to screen operations from scenic view sheds, reduce to acceptable level drill rig and other equipment noise, and fence or otherwise protect recreating public from operations. Exception mitigation will be developed in consultation with Park authorities.

16. [Stip. Code: GS-08] Sunlight Peak Area: Protection of semi-primitive non-motorized recreational and visual values.

Exception criterion includes mitigative measures to screen operations from scenic view sheds, reduce to acceptable level drill rig and other equipment noise, and fence or make substantially unnoticeable at a distance or otherwise protect recreating public from operations.

17. [Stip. Code: GS-09] Garfield Creek, Basalt, and West Rifle Creek State Wildlife Areas: Protection of wildlife habitat values for which these areas

were acquired: 1) Crucial big game and upland game winter habitat and concentration areas, 2) Riparian values.

Exception criterion includes special mitigative measures approved by the Colorado Division of Wildlife.

18. [Stip. Code: GS-10] Critical Watershed Areas: Protection of municipal watersheds providing domestic water for the communities of Rifle and New Castle and for the protection of the Glenwood Springs Debris Flow Hazard Zone.

No exceptions identified.

19. [Stip. Code: GS-11] Colorado and Eagle Rivers SRMAs: Protect recreational and visual values.

Exception criterion includes mitigative measures to screen operations from scenic view, reduce to acceptable level drill rig and other equipment noise, and fence or otherwise protect recreating public from operations.

Timing Limitation Stipulations

1. [Stip. Code: CO-09] Big game species (includes species of mule deer, elk, pronghorn antelope, and bighorn sheep). Note: Crucial winter habitat includes severe big game winter range or other definable winter ranges as mapped by the Colorado Division of Wildlife.

Big Game Crucial Winter Habitat - December 1 to April 30

Exception for big game crucial winter habitat. Under mild winter conditions, the last 60 days of the seasonal limitation period may be suspended. Severity of the winter will be determined on the basis of snow depth, snow crusting, daily mean temperatures, and whether animals were concentrated on the crucial winter range during the winter months.

Exception for big game crucial winter habitat. This limitation may or may not apply to work requiring a Sundry Notice pending environmental analysis of any operational or production aspects.

2. Big Game Birthing Areas: (by species)

- a. Elk calving - April 16 to June 30 [Stip Code: CO-10]
- b. Pronghorn Antelope fawning - May 1 to July 15 [Stip. Code: CO-11]
- c. Rocky Mountain Bighorn Sheep Lambing - May 1 to July 15 [Stip. Code: CO-12]
- d. Desert Bighorn Sheep Lambing - March 16 to May 30 [Stip. Code: CO-14]

Exception for Big Game Birthing Areas. When it is determined through a site-specific environmental analysis that specific actions would not interfere with critical habitat function or compromise animal condition within the project vicinity, the restriction may be altered or removed.

3. [Stip. Code: CO-15] Grouse (includes sage grouse, mountain sharp-tailed, and lesser and greater prairie chickens)

Sage grouse crucial winter habitat - December 16 to March 15

No exceptions identified.

4. [Stip. Code: CO-16] Greater Sandhill Crane nesting and staging habitat areas - March 1 to October 16

No exceptions identified.

5. [Stip. Code: CO-17] White Pelican nesting and feeding habitat areas - March 16 to September 30

No exceptions identified.

6. [Stip. Code: CO-18] Raptor nesting and fledgling habitat (includes the golden eagle and all accipiters, falcons, except the kestrels*, all butteos, and owls) - February 1 to August 15. Raptors that

are listed and protected by the Endangered Species Act are addressed separately.

This seasonal limitation applies to a one-quarter-mile buffer zone around the nest site.

* Kestrels are very adaptable to nest in a variety of habitats and their populations are stable and wide-spread.

7. [Stip. Code: CO-19] Ferruginous Hawk nesting and fledgling habitat - February 1 to August 15. The sensitivity of the ferruginous hawk to human-associated disturbance activities requires a one-mile buffer zone to avoid nest abandonment.

8. [Stip. Code: CO-20] Osprey nesting and fledgling habitat - April 1 to August 31. The sensitivity of osprey to human-associated disturbance activities requires a half-mile buffer zone to avoid nest abandonment.

Exception for raptors, ferruginous hawks, and ospreys (#'s 6., 7., and 8., above) nesting habitat. During years when a nest site is unoccupied or unoccupied by or after May 15, the seasonal limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

9. [Stip. Code: CO-21] Mexican Spotted Owl nesting and fledgling habitat - February 1 to July 31.

The Mexican spotted owl has been petitioned for listing as a threatened or endangered species to U.S. Fish and Wildlife Service. Subject to the petition determination, the following habitat management guidelines and restrictions will be used to protect the Mexican spotted owl. These guidelines are adopted from the interim timber harvest management guidelines issued by the Forest Service, Southwest Region (*Federal Register*, Vol. 54, No.124, June 29, 1989).

Mexican spotted owl habitat is restricted by use of a Timing Limitation applied to core areas within

the owl habitat territory. The territories are by definition of two types: (1) territory in which an owl(s) has been spotted, but no nests or roosts have been confirmed, and (2) territory in which there is confirmed nesting, feeding, and roosting activity. The territory of a Mexican Spotted Owl is thought to be about 2,000 acres and does not overlap with another individual's (or pair's) territory. Within the territory is a core area of 450 acres where there have been sightings only (1, above), or 1,480 acres where there are confirmed nests and/or roosts (2, above). The timing restriction from February 1 to July 31 is applied to the core areas (450 or 1,480 acres). A proposed oil and gas operation within the remainder of the territory (2,000 acres minus 450 or 1,480 acres) will be analyzed prior to permit approval and mitigated for compatibility with the owl habitat.

No specific exception criteria are currently identified.

10. [Stip. Code: CO-22] Bald Eagle Nesting Habitat - December 15 to June 15

Restriction for bald eagle courtship behavior and nesting habitat. This time period is extremely sensitive to human-disturbance activities and may cause nest abandonment and desertion of long established territories. A one-half-mile buffer zone around the nest site is required to prevent disruption of nesting.

Exception for bald eagle nesting habitat. During years when a nest site is unoccupied by or after May 15, the timing limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

11. [Stip. Code: CO-23] Bald Eagle Winter Roost Site - November 16 to April 15. The sensitivity of bald eagles to human-disturbance activities requires a one-half-mile buffer area around the roost site to avoid relocation to less suitable areas.

Exception for winter roost habitat. If there is partial or complete visual screening of the area of

activity, the primary zone around the roost site may be reduced to one-quarter mile.

12. [Stip. Code: CO-24] Peregrine Falcon Cliff Nesting Complex - March 16 to July 31

Restriction for peregrine falcon cliff nesting complex. The sensitivity of peregrine falcon to human-disturbance activities requires a half-mile buffer area around the nesting complex to prevent abandonment and desertion of established territories.

The following exception would apply only after formal Section 7 Consultation with the U.S. Fish and Wildlife Service was consummated.

Exception for nesting habitat. During years when a nest site is unoccupied or unoccupied by or after May 15, the seasonal limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

Controlled Surface Use Stipulations

1. [Stip. Code: CO-25] Where oil and gas operations are proposed within the area of federally leased coal they will be relocated outside the area to be mined or so as to accommodate room and pillar mining operations. This stipulation may be waived without a Plan Amendment if the lessee agrees that the drilling of a well will be subject to the following conditions: (1)(a) well must be plugged when the mine approaches within 500 feet of the well and re-entered or re-drilled upon completion of the mining operation; (b) well must be plugged in accordance with Mine Safety and Health Administration (formerly Mine Enforcement and Safety Administration) Informational Report 1052; (c) operator will provide accurate location of where the casing intercepts the coal by providing a directional and deviation survey of the well to the coal operator; or (2) relocate well into a permanent pillar or outside the area to be mined. A suspension of operations and production will be considered when the well is plugged and a new well is to be drilled after mining operations move through the location.

2. [Stip. Code: CO-26] Fragile Soil Areas. Prior to surface disturbance of fragile soils, it must be demonstrated to the Authorized Officer through a plan of development that the following performance objectives will be met.

Performance Objectives:

- I. Maintain the soil productivity of the site.
- II. Protect off-site areas by preventing accelerated soil erosion (such as land-sliding, gullying, rilling, piping, etc.) from occurring.
- III. Protect water quality and quantity of adjacent surface and groundwater sources.
- IV. Select the best possible site for development in order to prevent impacts to the soil and water resources.

Fragile soil areas, in which the performance objective will be enforced, are defined as follows:

- a. Areas rated as highly or severely erodible by wind or water, as described by the Soil Conservation Service in the Area Soil Survey Report or as described by on-site inspection.
- b. Areas with slopes greater than or equal to 35 percent, if they also have one of the following soil characteristics: (1) a surface texture that is sand, loamy sand, very fine sandy loam, fine sandy loam, silty clay or clay; (2) a depth to bedrock that is less than 20 inches; (3) an erosion condition that is rated as poor; or (4) a K factor of greater than 0.32.

Performance Standards:

- I. All sediments generated from the surface-disturbing activity will be retained on site.
- II. Vehicle use would be limited to existing roads and trails.
- III. All new permanent roads would be built to

meet primary road standards (BLM standards) and their location approved by the Authorized Officer. For oil and gas purposes, permanent roads are those used for production.

IV. All geophysical and geochemical exploration would be conducted by helicopter, horseback, on foot, or from existing roads.

V. Any sediment control structures, reserve pits, or disposal pits would be designed to contain a 100-year, 6-hour storm event. Storage volumes within these structures would have a design life of 25 years.

VI. Before reserve pits and production pits would be reclaimed, all residue would be removed and trucked off-site to an approved disposal site.

VII. Reclamation of disturbed surfaces would be initiated before November 1 each year.

VIII. All reclamation plans would be approved by the Authorized Officer in advance and might require an increase in the bond.

3. [Stip. Code CO-27] Prior to surface disturbance on steep slopes of, or greater than, 40 percent, an engineering/reclamation plan must be approved by the Authorized Officer. Such plans must demonstrate how the following will be accomplished:

- a. Site productivity will be restored.
- b. Surface runoff will be adequately controlled.
- c. Off-site areas will be protected from accelerated erosion such as drilling, gullyng, piping, and mass wasting.
- d. Surface-disturbing activities will not be conducted during extended wet periods.
- e. Construction will not be allowed when soils are frozen.

No specific exception criteria are currently identified.

4. [Stip. Code: CO-28] For the protection of perennial water impoundments and streams, and/or riparian/wetland vegetation zones, activities associated with oil and gas exploration and development including roads, transmission lines, storage facilities, are restricted to an area beyond the riparian vegetation zone.

Exceptions: This stipulation may be excepted subject to an on-site impact analysis with consideration given to degree of slope, soils, importance to the amount and type of wildlife and fish use, water quality, and other related resource values.

This stipulation will not be applied where the Authorized Officer determines that relocation up to 200 meters can be applied to protect the riparian system during well siting.

5. [Stip. Code: GS-12] Visual Resource Management Class II Areas: Relocation of operations more than 200 meters as required to protect visual values.

Exception criteria include mitigative measures to screen operations from scenic view sheds and restoration of disturbed areas to a condition substantially unnoticeable to casual observer.

Lease Notices

1. [Stip. Code: CO-29] Surface-disturbing activities in Class I and II Paleontological Areas will have an inventory performed by an accredited paleontologist approved by the Authorized Officer.

2. [Stip Code: CO-30] In order to protect nesting sage grouse, surface-disturbing activities proposed during the period between March 1 and June 30 will be relocated, consistent with lease rights granted and section 6 of the standard lease terms, out of sage grouse nesting habitat. Sage grouse nesting habitat is described as sagebrush stands with sagebrush plants between 30 and 100 centime-

ters in height and a mean canopy cover between 15 percent and 40 percent.

3. [Stip. Code: CO-31] Sensitive Species Areas: In areas of known or suspected habitat of sensitive plant or animal species, and high priority remnant vegetation associations, a biological and/or botanical inventory may be required prior to approval of operations. The inventory would be used to prepare mitigative measures (consistent with lease rights granted) to reduce the impacts of surface disturbance to the sensitive plant or animal species. These mitigative measures may include (but, are not limited to) relocation of roads, pads, pipelines, and other facilities, and fencing operations or habitat.

4. [Stip. Code: GS-13] Blue Hill Archaeological ACEC: This area contains a high density of prehistoric and cultural resources. Mitigation will be required at the operator's expense upon discovery of any resources at the time of development. Mitigation would require the services of an archaeologist (private contractor) approved by the Authorized Officer to conduct extensive field work, such as excavation and monitoring of construction activities.

Conditions of Approval

Mitigation Authority: The lease "granting clause" and Section 6 of Oil and Gas Lease Form.

Post-lease operations proposals are reviewed to ensure conformance with the plan. The mitigative measures listed in Appendices D and F of the *Colorado Oil and Gas Leasing and Development Plan Amendment and Final Environmental Impact Statement* (January 1991) represent the post-lease environmental protection to which the BLM is committed. Note that there is no commitment to the specific wording of a listed Condition of Approval (COA), but rather to the level of impact protection implied in the COA.

The listed mitigative measures apply to all oil and gas exploration and development activities and

associated rights-of-way as applicable. The Authorized Officer will choose among these measures at the field development stage to mitigate or avoid environmental impacts identified on a site-specific basis. When attached to an approval document, the measures are known as COAs. The Authorized Officer is not limited to the list of COAs shown in the referenced appendices, but may develop others as the potential for local impacts is identified at the time of a site-specific proposal, so long as the new COAs conform with the limitations of the granted lease rights and the guidance set forth in this plan and subsequent amendments.

COAs are not added to applications if they are unnecessary (do not apply to the case in question) or are duplicative, as when the mitigative measure is already incorporated in the operator's submittal.

APPENDIX B

Changes Made to Leasing Stipulations Between the Draft and Final Plan Amendment/EIS

No Surface Occupancy Stipulations Added in Final

1. Coal mines will be protected by the use of a No Surface Occupancy stipulation where development would be incompatible with the planned coal extraction within the area of the coal lease. This stipulation was added to the Final EIS after additional analysis arising from comments made to the Draft EIS by federal coal lease operators.
2. Raptors were grouped together for protection by a single No Surface Occupancy stipulation in the Final EIS (expansion of golden eagle stip in Draft). This stipulation replaced the No Surface Occupancy stipulations for prairie falcon and golden eagles in the Draft EIS. In addition to prairie falcons and golden eagles, this stipulation will now also protect ospreys, accipiters, owls, butteos and falcons (except kestrels). Peregrine falcons and bald eagles are protected by separate No Surface Occupancy stipulations.
3. Mexican spotted owls were being considered for listing as an endangered species when the Final EIS was being prepared. For that reason, a No Surface Occupancy stipulation was developed to protect the owl until more could be found out about the bird and its endangerment. Presently there are no Mexican spotted owls identified in Glenwood Spring Resource Area.
4. The Waterfowl and Shorebirds No Surface Occupancy stipulation was extended to all five Resource Areas in the Final EIS after publication of the stipulation in the Kremmling Resource Area section of the Draft EIS. Upon review, the other

four Resource Areas determined they had similar needs for waterfowl protection.

5. The Special Status Plant Species No Surface Occupancy stipulation was added between Draft and Final in response to comments from the U.S. Fish and Wildlife Service. Many special status plants are protected by No Surface Occupancy stipulations within special management areas, such as ACECs. However, special status plant communities of significant size may be identified outside those areas. This stipulation will allow protection of those plants.

Timing Limitation Stipulations Added in Final

6. Big Game Birthing Areas (elk, antelope, Rocky Mountain bighorn, and desert bighorn) are protected in the Final EIS with a Timing Limitation stipulation. The stipulation was created from several birthing stipulations in different Resource Areas to provide uniform protection throughout the five planning areas.
7. White pelicans have spread to several resource areas in Colorado. By adding a timing limitation stipulation to all five Resource Areas, their nesting and feeding habitat may be protected wherever needed.
8. Mexican spotted owl were proposed for listing in the Spring of 1991. The BLM knew of the proposal at the time the Final EIS was in preparation and added a Timing Limitation stipulation to protect the species whether it is listed as endangered or as some other category of sensitive spe-

cies. This stipulation was also edited for clarity prior to the drafting of this Record.

Controlled Surface Use Stipulations Added in Final

9. Coal mines will be protected with a Controlled Surface Use stipulation within the coal lease where compatible oil and gas operations may be sighted on the coal lease. This stipulation was added to the Final EIS after additional analysis arising from comments made to the Draft EIS by federal coal lease operators.

10. The Steep Slope (>40%) Controlled Surface Use stipulation was added to ensure protection of steep slopes that may not be protected by other stipulations (notably the Fragile Soil stipulation).

11. Riparian/Wetland Vegetation Zone Controlled Surface Use stipulation was extended to all five Resource Areas in the Final EIS after appearing in the Kremmling Resource Area section of the Draft EIS as protection for waterfowl and shorebirds. This stipulation will protect habitat along with the "Waterfowl and Shorebird No Surface Occupancy" stipulation shown above (See the additional discussion of riparian and wetland protection in relationship to Comment 63 of the Final Plan Amendment/EIS below in Appendix C).

Leasing Stipulations Dropped Between Draft and Final

Two changes between the draft and final EIS merit a special discussion. The changes concern: 1) the method of protection for crucial wildlife habitat in Glenwood Springs Resource Area and 2) sage grouse habitat in all five Resource Areas.

12. The term "compensation," as applied in the Glenwood Springs Resource Areas stipulation (page E-9, Draft EIS), was used in the sense of redress, counteracting, or offsetting. At no time was this term intended to be interpreted as payment, recompensation, or reimbursement. We are

committed to, by the methods described in this document, offset or counteract the adverse effects of oil and gas development to crucial wildlife habitat. It was partly this confusion in language that caused the deletion of the stipulation. But, mostly it was dropped because the mitigation envisioned in the stipulation has long been a part of routine oil and gas mitigation applied during the on-site analysis process.

The paragraph describing the methods that would be used to offset impacts to wildlife habitat in the draft EIS was omitted from the final EIS when it was decided to delete the stipulation. We are of the opinion that adequate authority exists in the standard terms of the lease form to impose all of the methods described in that paragraph without special lease stipulations. Many actions can be taken by Area Managers without special lease stipulations. These can range from prescribed burns, sagebrush rotochopping, fertilization of various browse species, to dozing or chaining and seeding of closed canopy pinyon-juniper stands (as discussed in the Draft EIS, page 4-3). These actions may be taken as a result of the environmental analysis prepared for each Application for Permit to Drill. These environmental analyses range from simple environmental assessments to full EIS's.

13. We believe that the majority of sage grouse nesting habitat on public lands in Colorado can be described as discontinuous stands of sagebrush whose areal extent does not exceed 200 meters in radius. Therefore, a COA was substituted for the original lease stipulation concerning sage grouse habitat (see Appendix B for specific language of the COA). This method of protection will minimize the number of exceptions that would have been granted under the one-mile limitation proposed in the draft document. In those areas where suitable habitat is continuous, we believe that since the adjacent habitat is unoccupied, sage grouse can utilize other areas of the continuous stand of suitable sagebrush. We have found that it is possible to locate surface-disturbing activities within one mile of a lek in non-nesting habitat which avoids direct impact to nesting sage grouse.

We believe that this technique will better serve the public interest. As is standard operating procedure since approval of the original RMP, Area Managers will monitor the effectiveness of this procedure, as well as the effectiveness of all the stipulations and COAs. As with all mitigative measures should the procedure prove to be ineffective, this issue will be revisited.

We recognize that the method proposed is different than the method of protecting sage grouse habitat in other areas. However, we believe that replacement of the sage grouse nesting habitat lease stipulation with the COA discussed above, actually extends the effective distance of protection from a sage grouse lek for this habitat. The COA would apply where suitable habitat is located more than one mile from the lek. From the above discussion, it should be clear that the degree of protection is at least equivalent, but the method used to achieve the protection is different.

APPENDIX C

ERRATA SHEET

"COLORADO OIL AND GAS LEASING AND DEVELOPMENT FINAL ENVIRONMENTAL IMPACT STATEMENT," January, 1991

1. Page 2-5: Top paragraph of right-hand column; The list of Tables should read "Tables 2-3, 2-6, 2-9, 2-12 and 2-15."
2. Page 2-29: "Windy Gap RMA" RMA should be RNA for Research Natural Area.
3. Page 3-11: Table 3-5, last line, "OCCURRENCE" should include LSRA,
4. Page 4-17: The acreage figures in the last paragraph of the first column should be 274 and 67, respectively.
5. Page 5-16: Comment Number 63. The Response should read, "No potential significant impacts to loss of mountain shrub habitat were identified. Mountain shrub habitat is included in several special management areas that do carry a NSO stipulation for the protection of other resources."

"The riparian/wetland stipulation found in Appendix E, page E-10, will allow the movement of proposed oil and gas operations up to 656 feet (200 meters). Riparian areas in Colorado are such that a movement of that magnitude will take a proposed operation out of the riparian/wetland vegetation zone. Rivers with riparian zones wider than 1,300 feet, such as the Colorado River in Glenwood Springs are protected by a special NSO stipulation."